

Service Manual



PRS-D5000SPL/X1H/EW

ORDER NO.
CRT3326

CLASS D MONO AMPLIFIER

PRS-D5000SPL /X1H/EW
PRS-D5000SPL /X1H/UC



For details, refer to "Important check points for good servicing".

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A SAFETY INFORMATION

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.
Health & Safety Code Section 25249.6 - Proposition 65

● Service Precaution

You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

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[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol.
Please be sure to confirm and follow these procedures.

1. Product safety



Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

- ① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

- ② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification(addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

- ③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris.
Soldering should be finished with the proper quantity. (Refer to the example)

- ④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

- ⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

- ⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs.
In addition, be sure that there are no pinched wires, etc.

- ⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

- ⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages.
If you find a damaged power cord, please exchange it with a suitable one.

- ⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

- ⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries.
Please pay attention to your surroundings and repair safely.

2. Adjustments



To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification.
Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts



Use grease and adhesives that are equal to the specified substance.
Make sure the proper amount is applied.

4. Cleaning



For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws



To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

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1. SPECIFICATIONS

Power source	14.4 V DC (10.8 — 15.1 V allowable)
Grounding system	Negative type
Backup current	3 mA or less
Current consumption	70 A (at continuous power, 4 Ω)
Average current drawn*	10.6 A (4 Ω for one channel) 15.6 A (2 Ω for one channel)
Fuse	150 A
Dimensions	300 (W) × 64 (H) × 330 (D) mm
Weight	7.3 kg (Leads for wiring not included)
Maximum power output	1,500 W × 1 (4 Ω) / 3,000 W × 1 (2 Ω)
Continuous power output (EW)	1,100 W × 1 (4 Ω) / 1,950 W × 1 (2 Ω) (DIN45324, +B=14.4 V)
Continuous power output (UC)	750 W × 1 (at 14.4 V, 4 Ω, 20 — 240 Hz 1.0% THD) 1,500 W × 1 (at 14.4 V, 2 Ω, 20 — 240 Hz 2.0% THD)
Load impedance	4 Ω (2 — 8 Ω allowable), (Ex. Bridge 4 — 16 Ω)
Frequency response	10 — 240 Hz (+0 dB, -1 dB)
S/N ratio	90 dB (IEC-A network)
Distortion	0.05 % (50 W, 100 Hz)
Low pass filter	Cut off frequency: 40 — 240 Hz Cut off slope: -18, -24 dB/oct
Subsonic filter (HPF)	Frequency: 20 Hz Slope: -18 dB
Bass boost	Level: 0 — 12 dB Frequency: 40 — 120 Hz
Phase control	SYNC, SYNC INV
Gain control	200 mV — 6.5 V
Maximum input level / impedance	RCA: 6.5 V / 22 kΩ

(UC model)

Power output	750 W RMS × 1 channel (4 Ω and ≤ 1 % THD+N) 1500 W RMS × 1 channel (2 Ω and ≤ 1 % THD+N, 240 Hz)
S/N ratio	60 dBA (Reference: 1 W into 4 Ω)



Note:

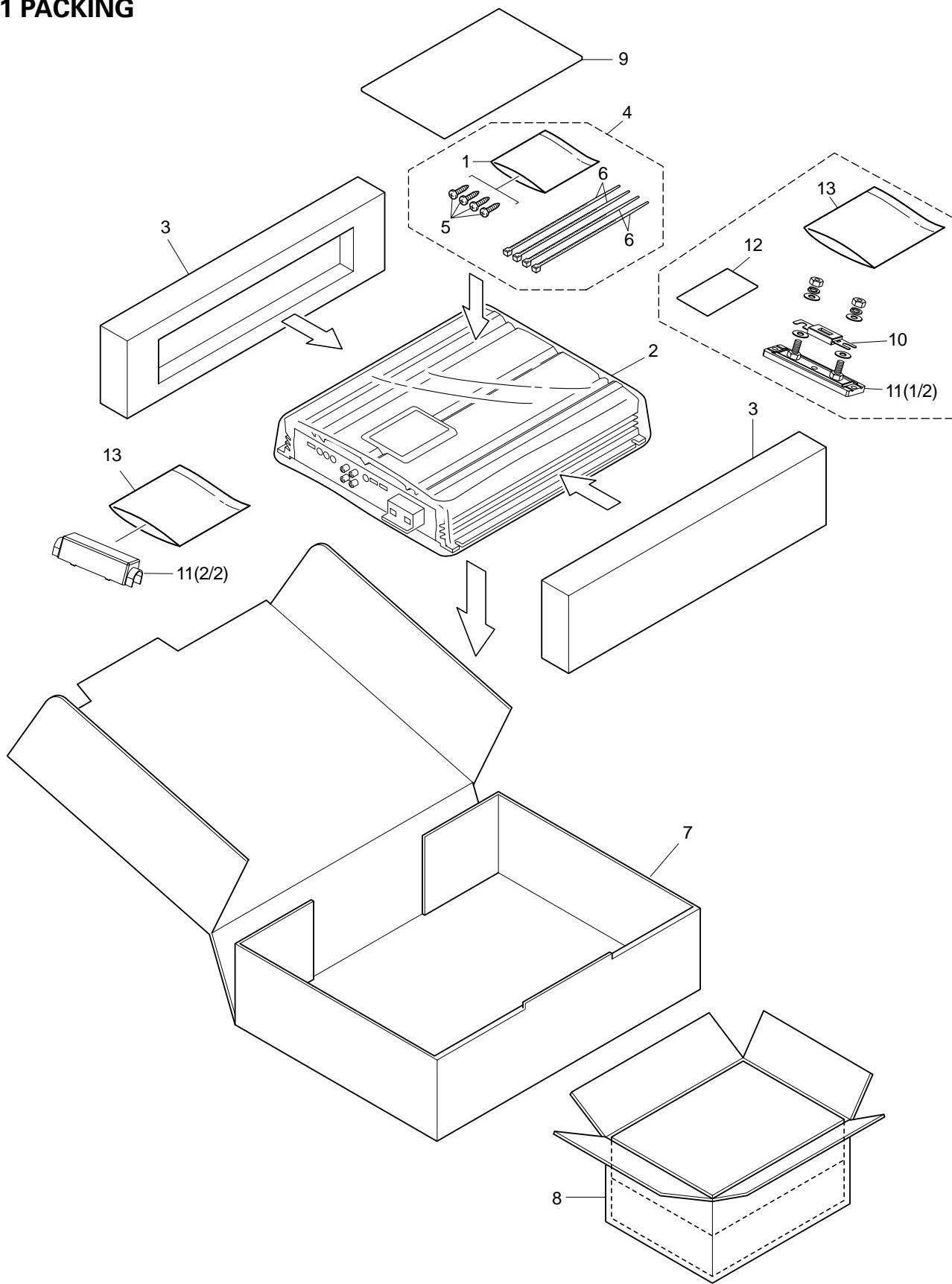
- Specifications and the design are subject to possible modification without notice due to improvements.

***Average current drawn**

- The average current drawn is nearly the maximum current drawn by this unit when an audio signal is input. Use this value when working out total current drawn by multiple power amplifiers.

A 2. EXPLODED VIEWS AND PARTS LIST

2.1 PACKING



NOTE:

- Parts marked by “*” are generally unavailable because they are not in our Master Spare Parts List.
- The  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Screws adjacent to  mark on the product are used for disassembly.
- For the applying amount of lubricants or glue, follow the instructions in this manual.
(In the case of no amount instructions, apply as you think it appropriate.)

● PACKING SECTION PARTS LIST

Mark	No.	Description	Part No.
1	Polyethylene Bag	HEG0011	
2	Polyethylene Bag	HEG0022	
3	Protector	HHP0268	
4	Screw Assy	HEA0072	
5	Screw	BYC40P180FZK	
6	Lock Tie	HNV0071	
7	Carton(EW)	HHG0452	
	Carton(UC)	HHG0448	
8	Contain Box	HHL0448	
*	9-1 Warranty Card(EW)	HRY1157	
*	9-2 Card(UC)	ARY1048	
9-3	Owner's Manual(EW)	HRD0241	
	Owner's Manual(UC)	HRD0240	
	10 Fuse (150A)	HEK1291	
	11(1/2) Fuse Holder (Base)	HKR1026	
	11(2/2) Fuse Holder (Cover)	HKR1026	
12	Install Card (EW)	HRP1298	
	Install Card (UC)	HRP1297	
13	Polyethylene Bag	HEG0031	

● Owner's Manual

Part No.	Language
HRD0240	English, French
HRD0241	English, Spanish, German, French, Italian, Dutch

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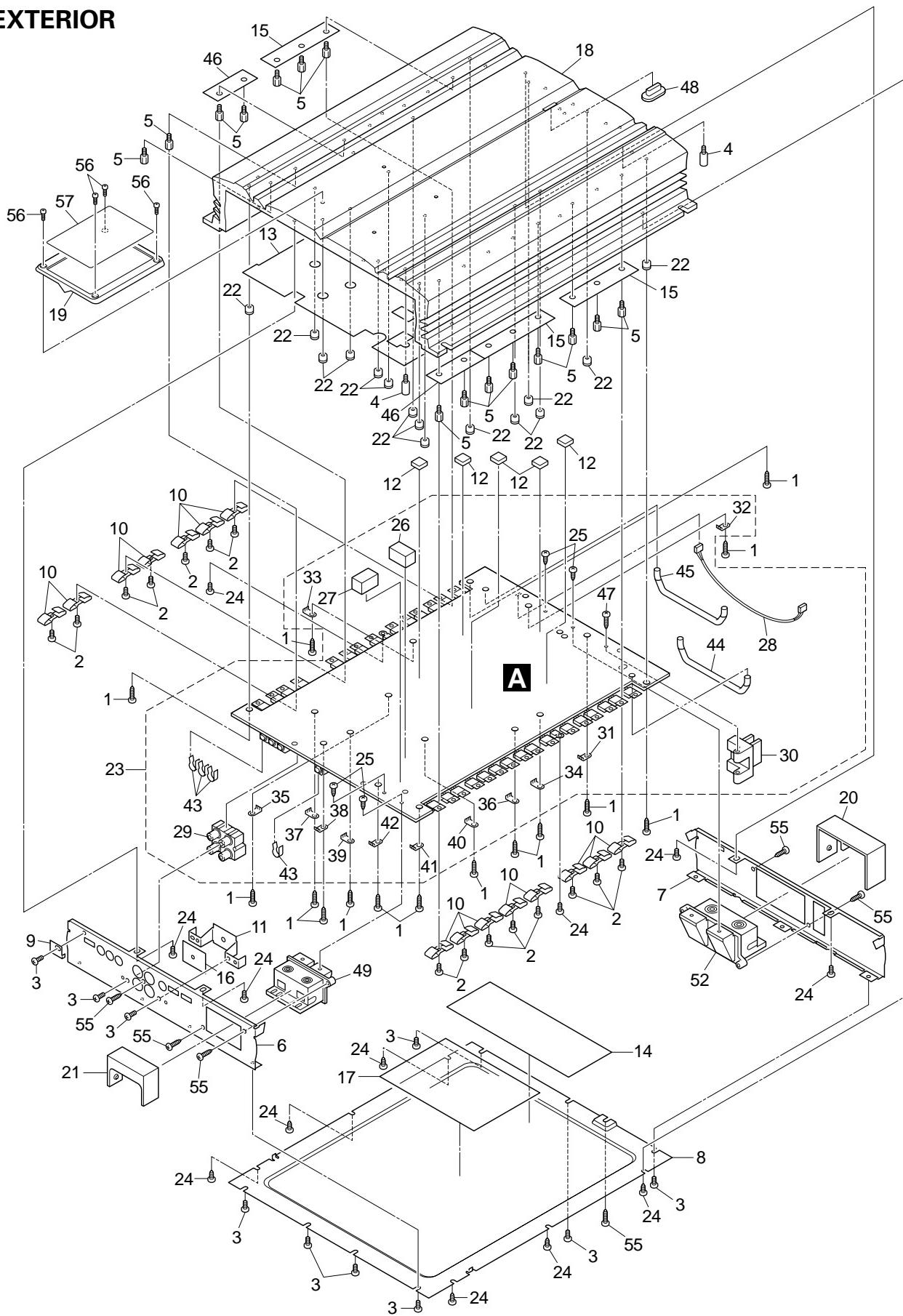
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2.2 EXTERIOR



● EXTERIOR SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Screw	BBZ30P120FTC	50	
2	Screw	BMZ30P050FTC	51	
3	Screw	BSZ30P050FZK	52	Terminal Unit (CN901,902)	HXA0449
4	Screw	HBA0028	53	
5	Stud	HLA0022	54	
6	Panel	HNB0248	55	Screw	PPZ30P120FZK
7	Panel	HNB0249	56	Screw	SMZ20H060FNN
8	Case	HNB0250	*	57 Badge (EW)	HAM0039
9	Cover	HNB0272	*	Badge (UC)	HAM0034
10	Clip	HNC0189			
11	Holder	HNC0207			
12	Spacer	HNM0006			
13	Insulator	HNM0205			
14	Insulator	HNM0206			
15	Insulator	HNM0207			
16	Insulator	HNM0209			
17	Insulator	HNM0215			
18	Heat Sink	HNR0277			
19	Plate	HNS0122			
20	Cover	HNS0134			
21	Cover	HNS0135			
22	Spacer	HNV0016			
23	Amp Unit(EW)	HWH0218			
	Amp Unit(UC)	HWH0219			
24	Screw	BBZ30P060FTC			
25	Screw	BBZ30P060SAD			
26	Cushion(CN303)	CNM6825			
27	Cushion(CN304)	CNM6825			
28	Cord Assy	HDE0065			
29	Pin Jack(CN801)	HKB0004			
30	Terminal(CN903)	HKE1050			
31	Terminal(CN601)	HKF0001			
32	Terminal(CN602)	HKF0001			
33	Terminal(CN603)	HKF0001			
34	Terminal(CN604)	HKF0001			
35	Terminal(CN605)	HKF0001			
36	Terminal(CN606)	HKF0001			
37	Terminal(CN607)	HKF0001			
38	Terminal(CN608)	HKF0001			
39	Terminal(CN609)	HKF0001			
40	Terminal(CN610)	HKF0001			
41	Terminal(CN611)	HKF0001			
42	Terminal(CN612)	HKF0001			
43	Clip	HNC0054			
44	Buss Bar	HNC0200			
45	Buss Bar	HNC0201			
46	Insulator	HNM0208			
47	Screw	PPZ30P100SAD			
48	Light Pipe	HXA0426			
49	Terminal Unit (CN301,302)	HXA0448			

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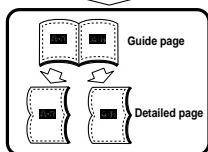
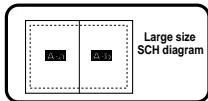
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3. SCHEMATIC DIAGRAM

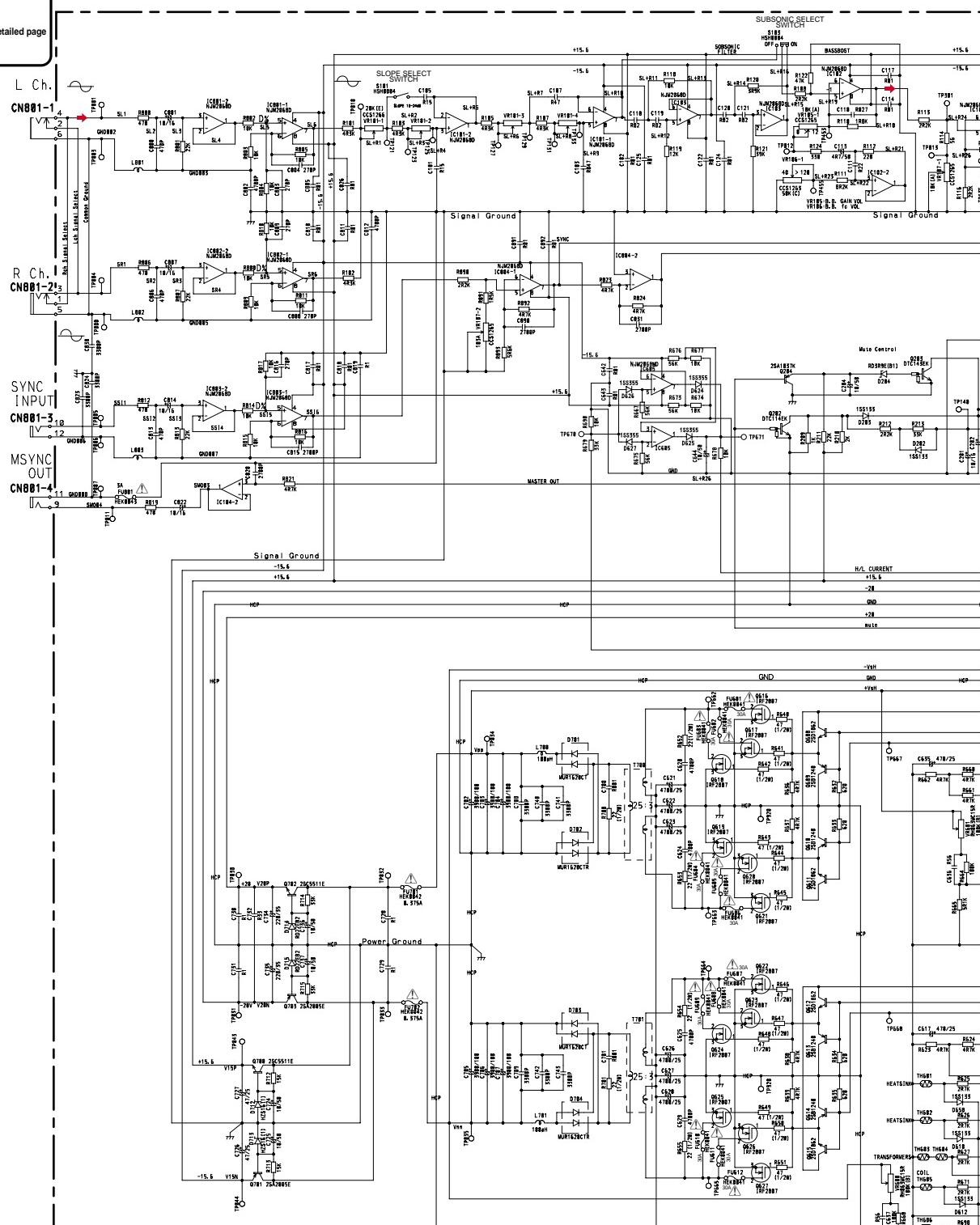
3.1 SCHEMATIC DIAGRAM (GUIDE PAGE)

Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".

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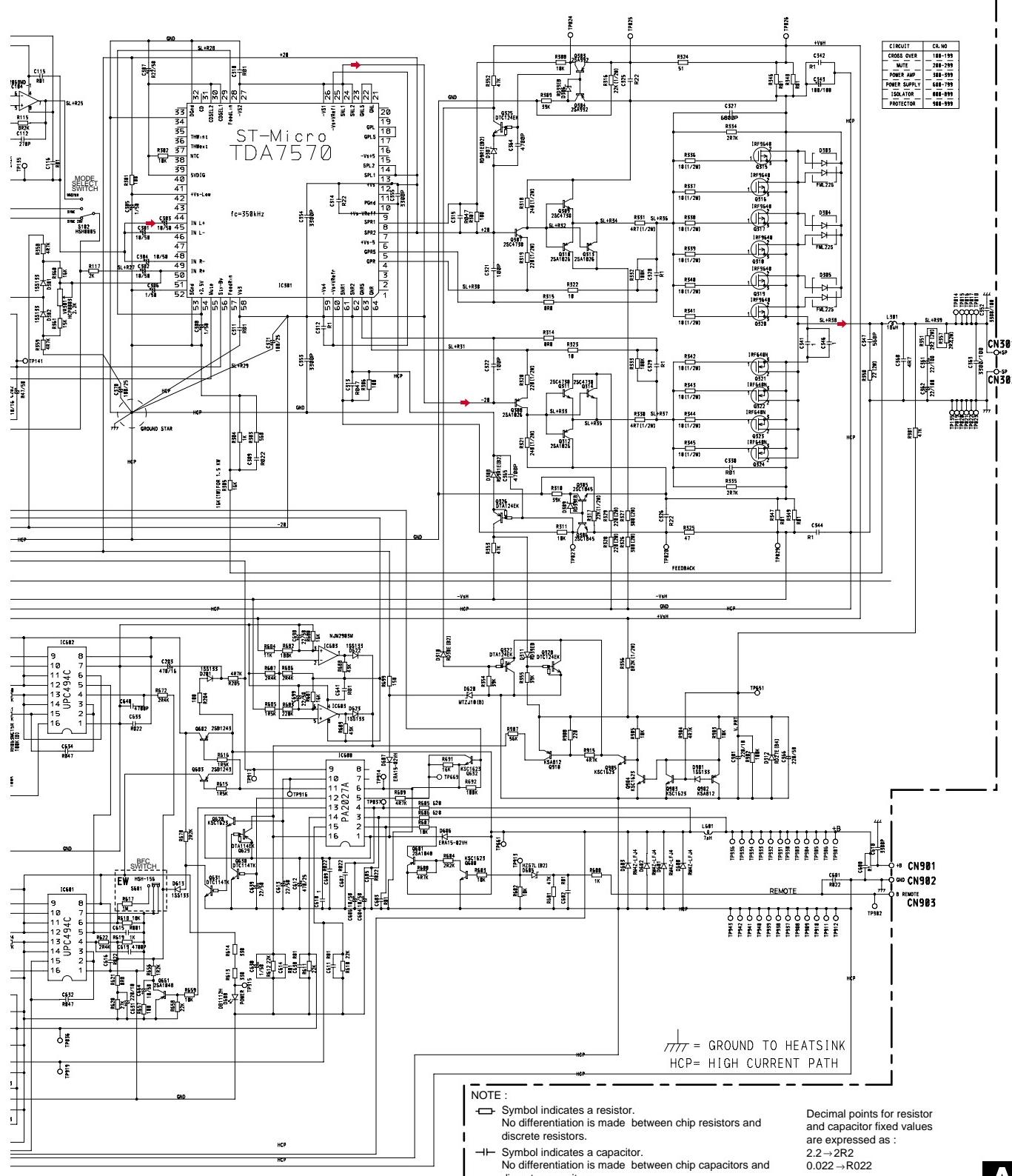


The mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

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A-b

A AMP UNIT

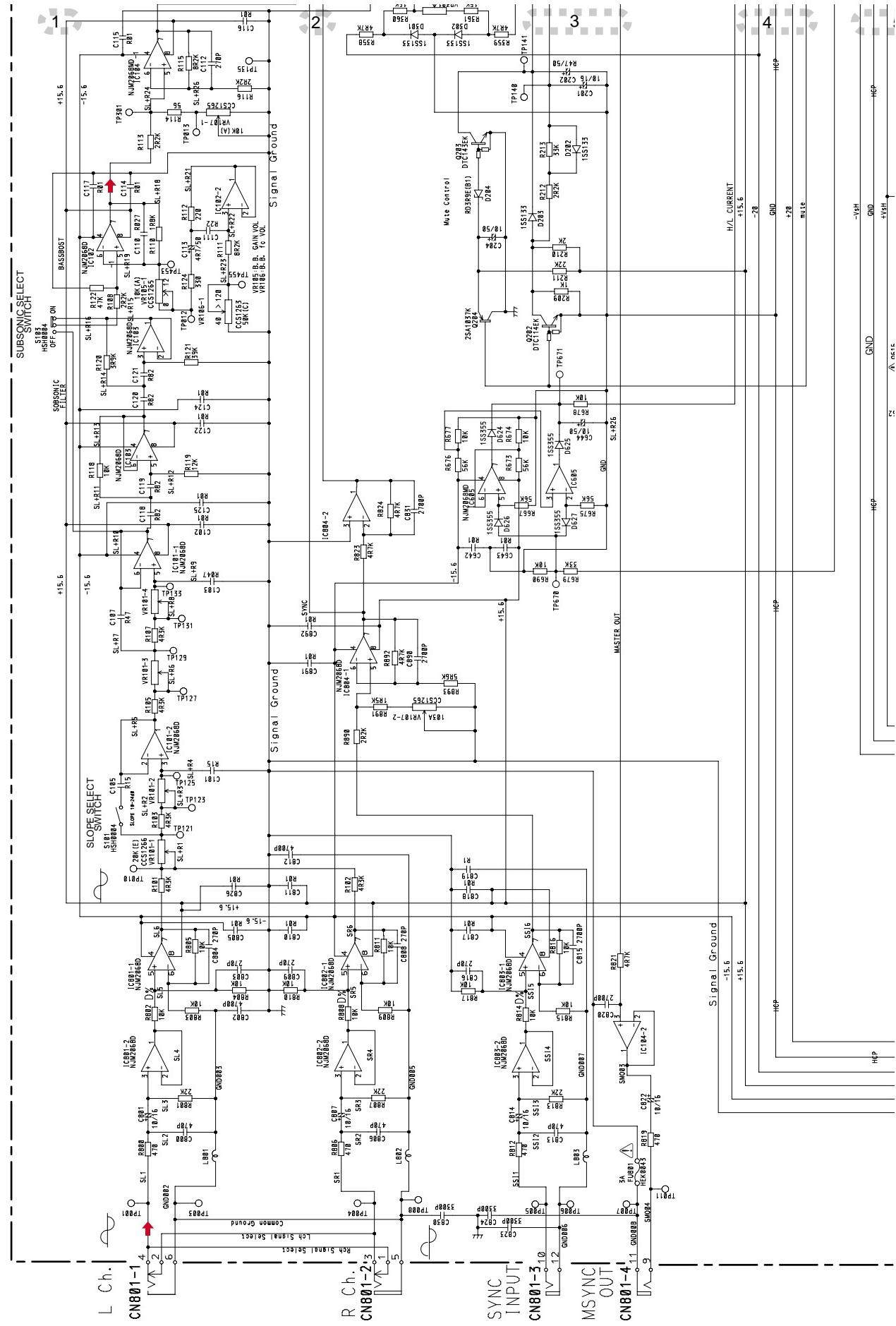


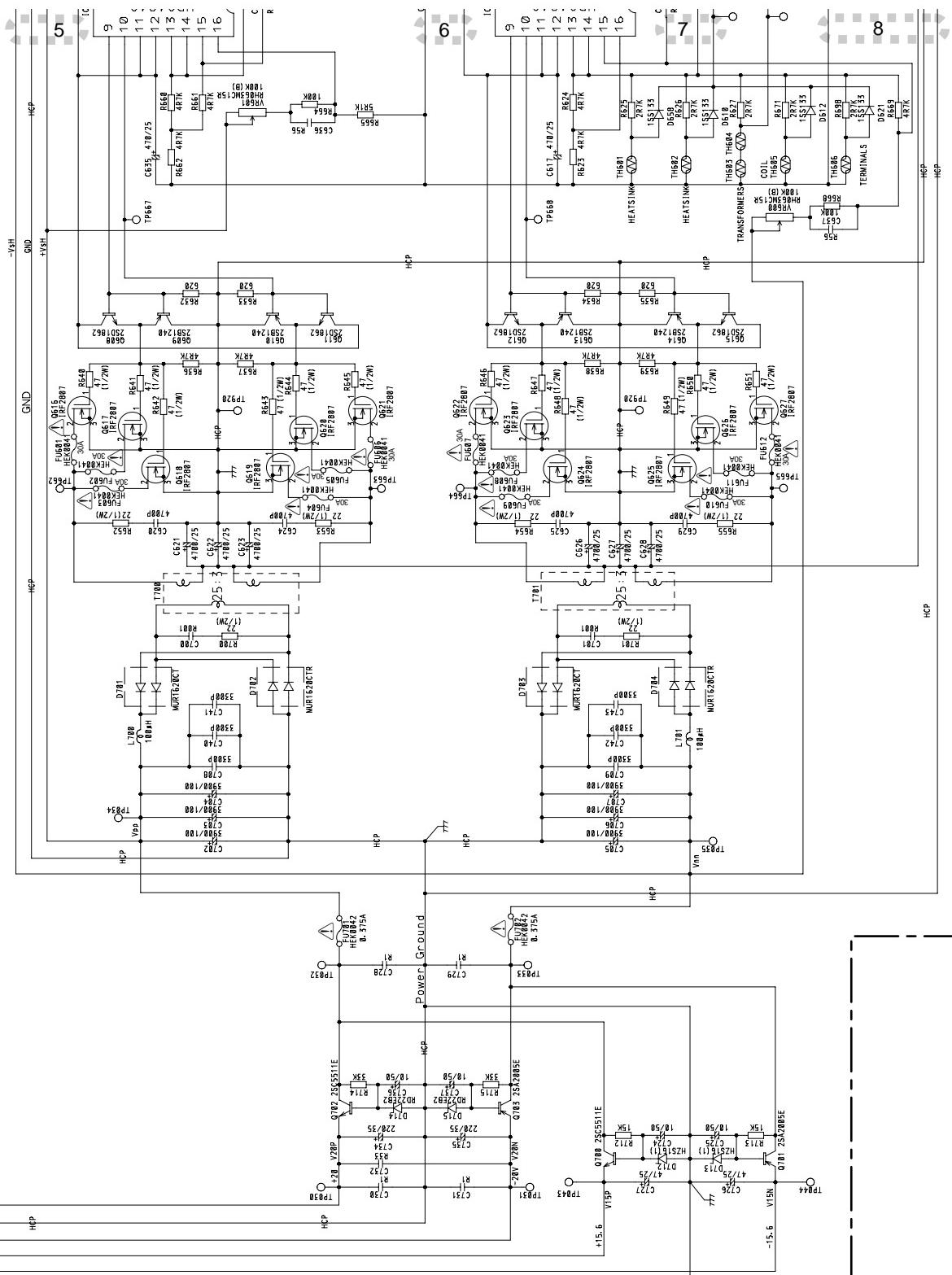
NOTE :

- Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.
 - Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.

Decimal points for resistor and capacitor fixed values are expressed as :
2.2 → 2R2
0.022 → R022

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A-b**A-a A-b**



A-b

A-a

A

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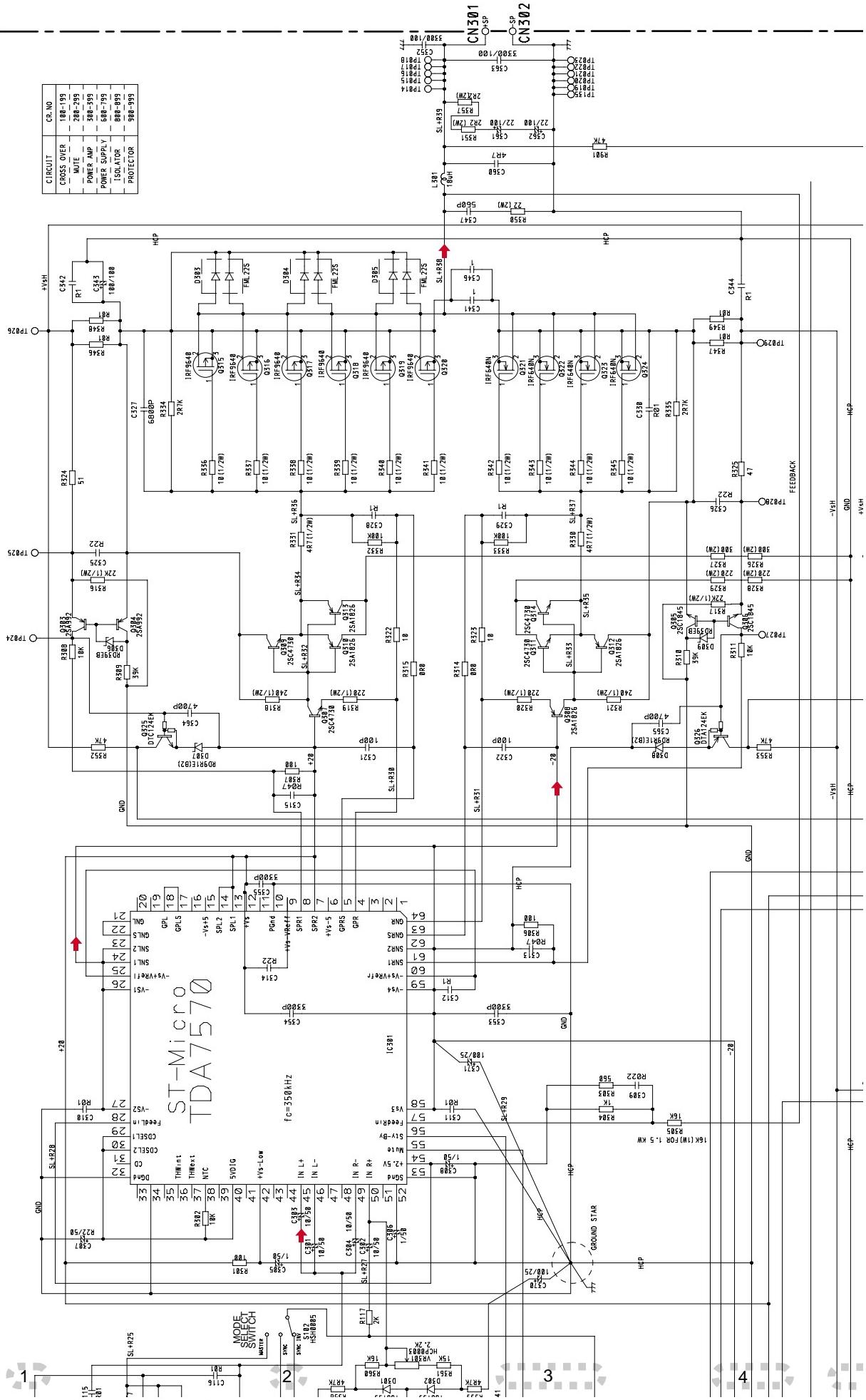
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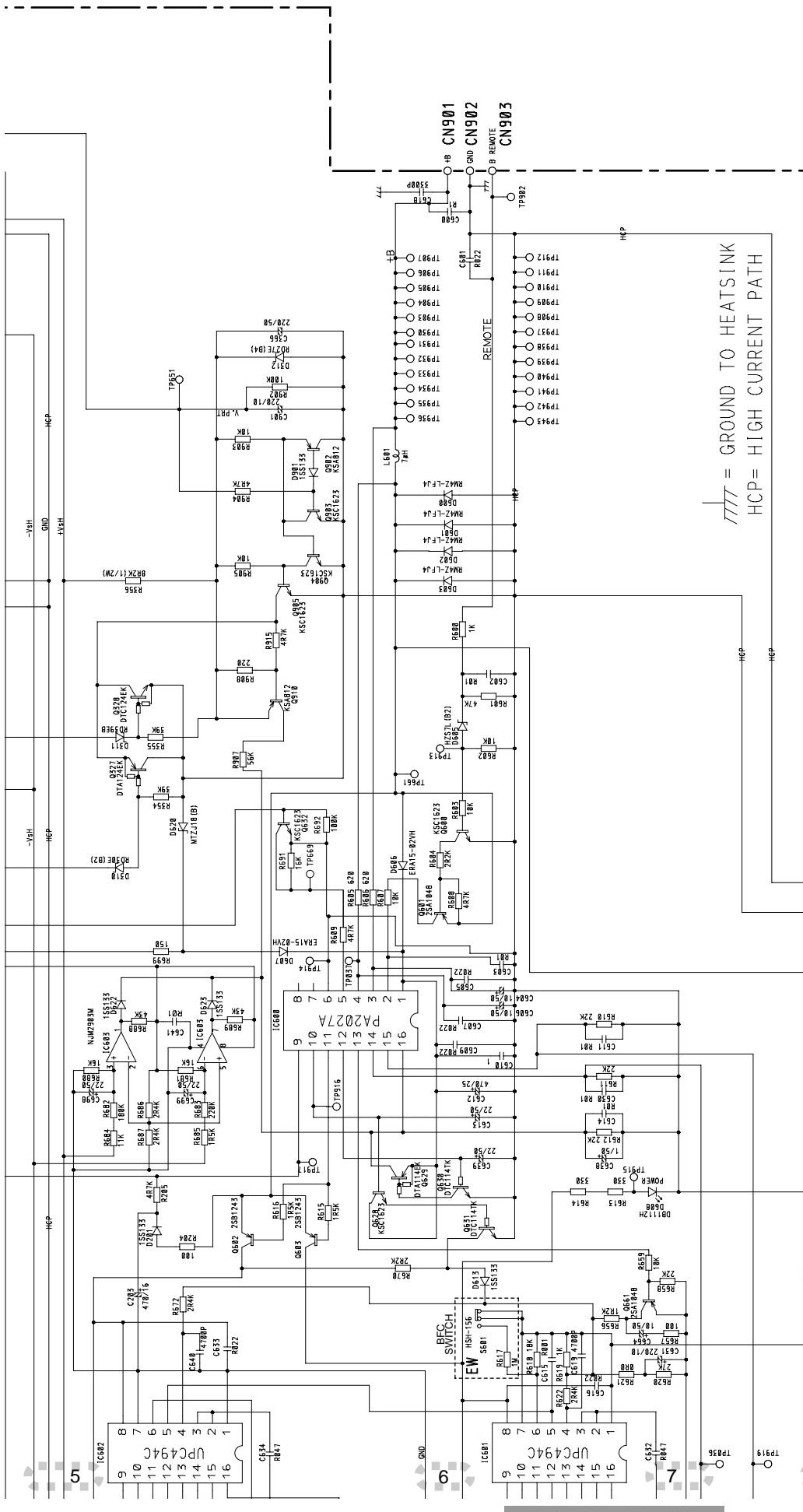
A AMP UNIT

A-a A-b

**A-b**

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PRS-D5000SPL/X1H/EW



Symbol index

- Symbol indicates a capacitor.
 - No differentiation is made between discrete resistors.

Decimal points for resistor and capacitor fixed values are expressed as :

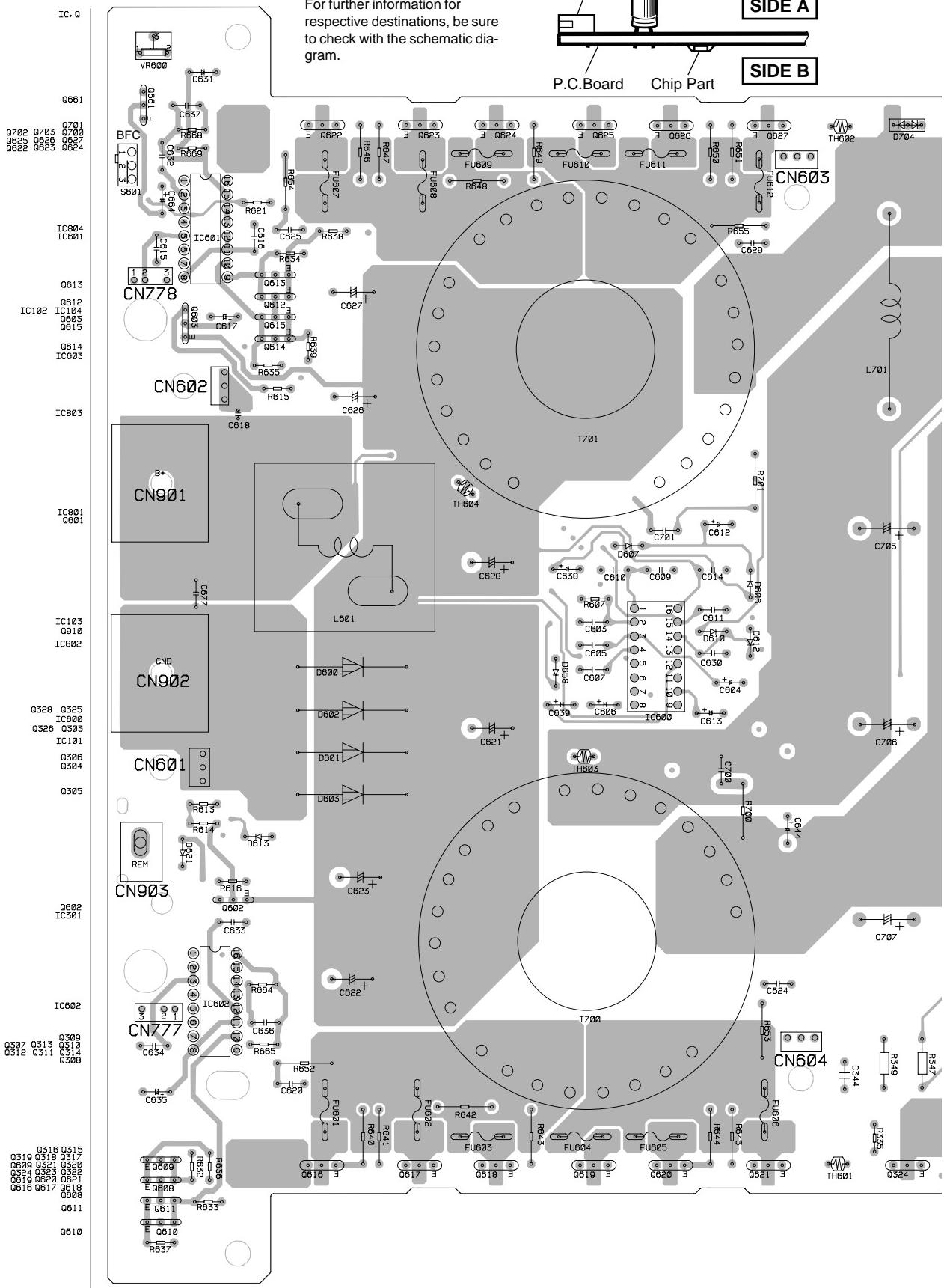
The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

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4. PCB CONNECTION DIAGRAM

4.1 AMP UNIT

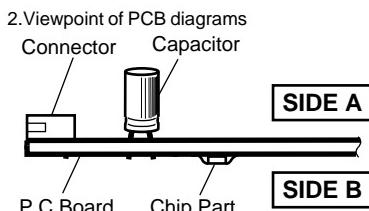
A AMP UNIT



NOTE FOR PCB DIAGRAMS

- NOTE FOR PCB DIAGRAMS**

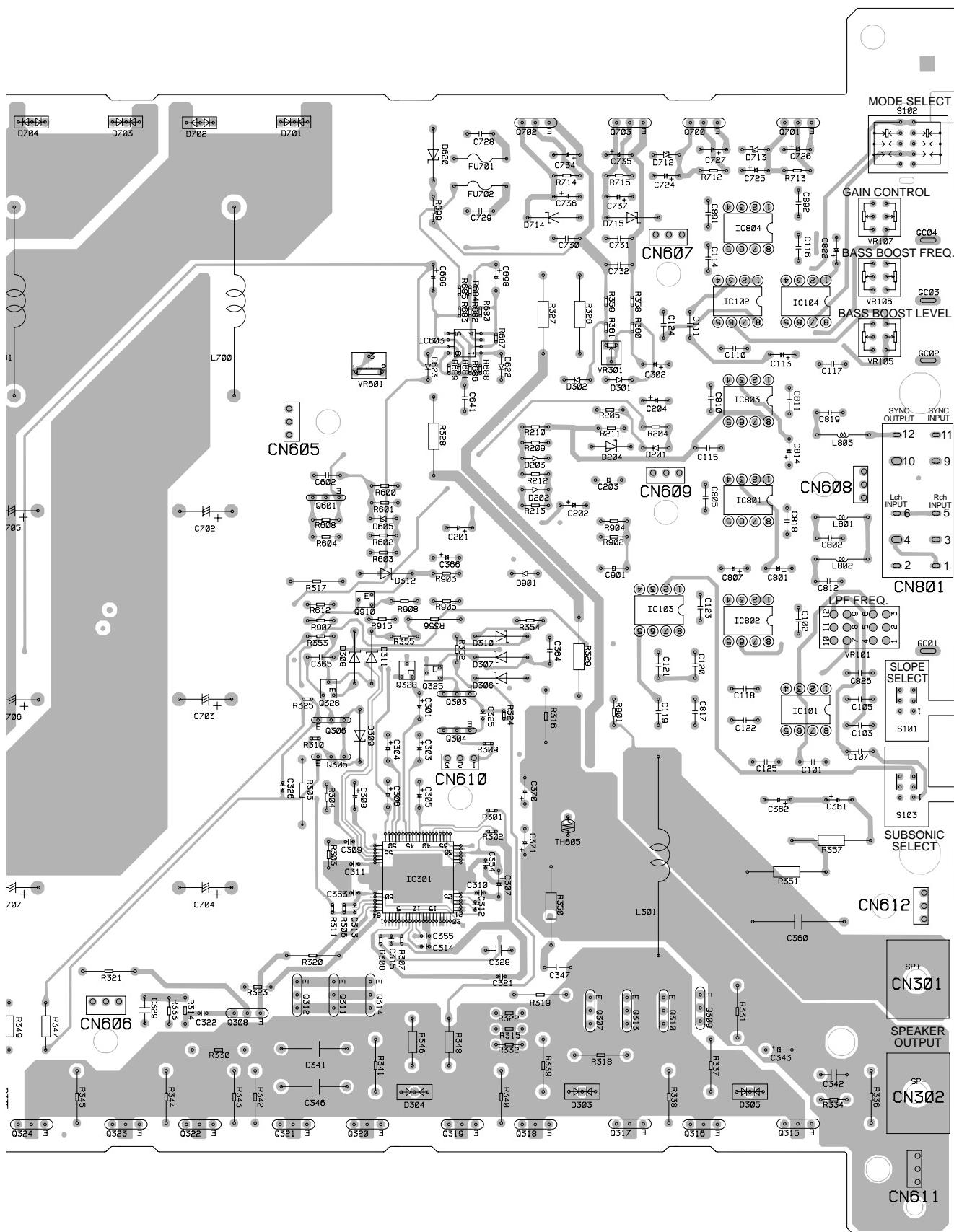
 1. The parts mounted on this PCB include all necessary parts for several destination. For further information for respective destinations, be sure to check with the schematic diagram.



SIDE A

SIDE B

SIDE A



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A AMP UNIT

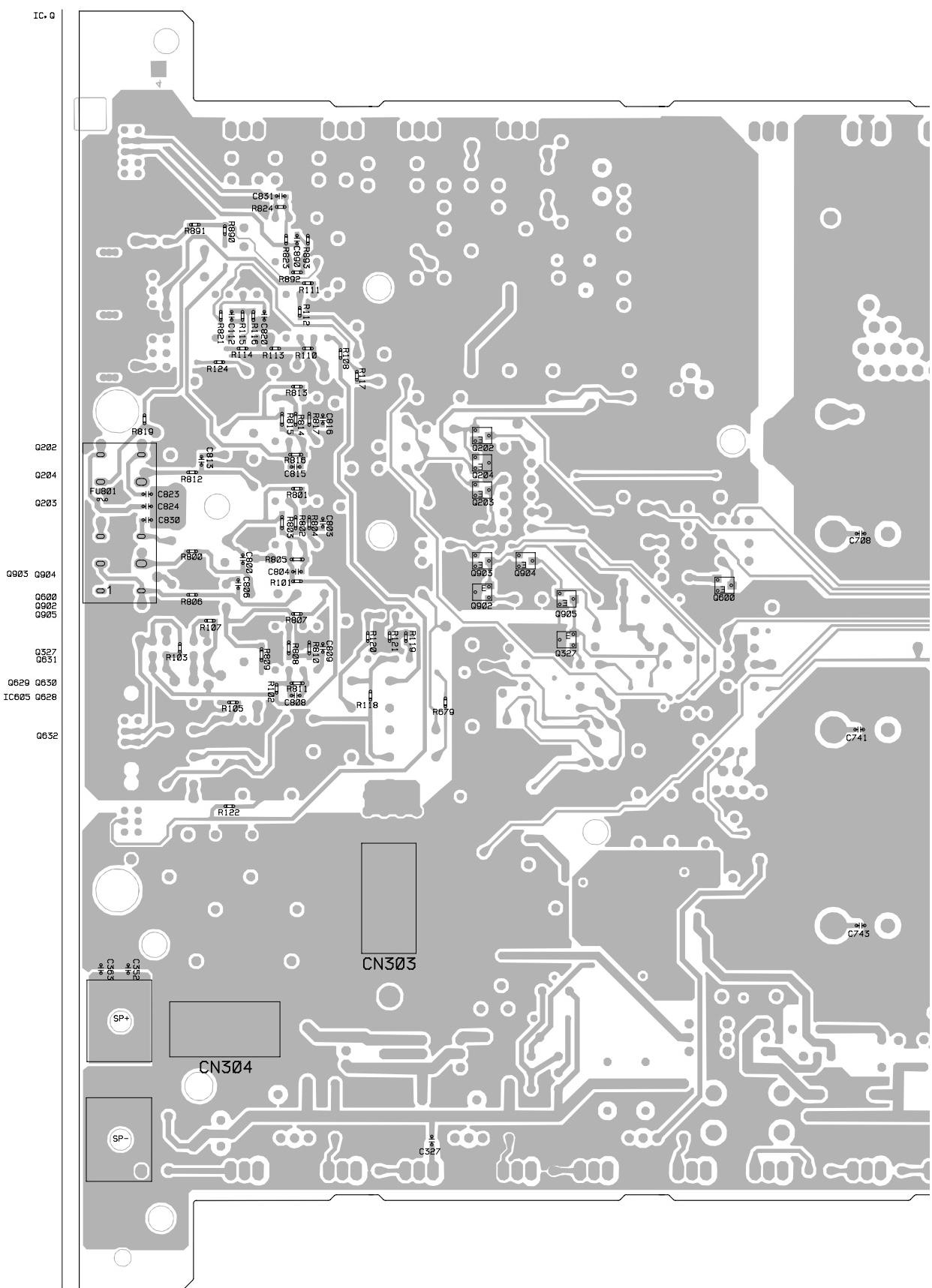
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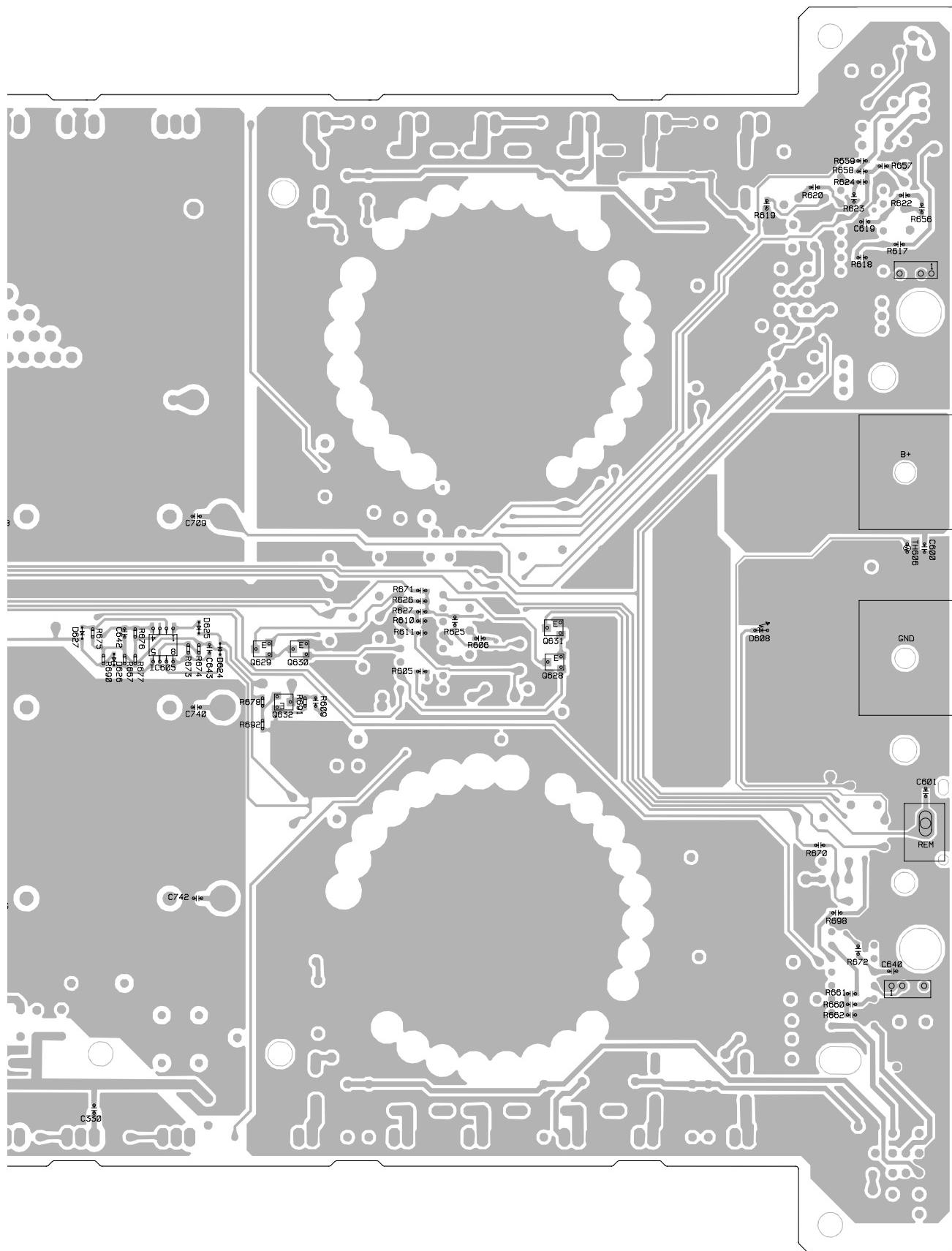
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SIDE B**A**

A 5. ELECTRICAL PARTS LIST

NOTE:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/OS○○○J, RS1/O○S○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

- The  mark found on some component parts indicates the importance of the safety factor of the part.

Therefore, when replacing, be sure to use parts of identical designation.

	====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.
A	Unit Number : HWH0218(EW) Unit Number : HWH0219(UC) Unit Name : Amp Unit		Q 602 Transistor Q 603 Transistor Q 608 Transistor Q 609 Transistor Q 610 Transistor	2SB1243 2SB1243 2SD1862 2SB1240 2SB1240
	MISCELLANEOUS			
C	IC 101 IC IC 102 IC IC 103 IC IC 104 IC IC 301 IC	NJM2068D NJM2068D NJM2068D NJM2068D TDA7570	Q 611 Transistor Q 612 Transistor Q 613 Transistor Q 614 Transistor Q 615 Transistor	2SD1862 2SD1862 2SB1240 2SB1240 2SD1862
	IC 600 IC IC 601 IC IC 602 IC IC 603 IC IC 605 IC	PA2027A UPC494C UPC494C NJM2903M NJM2068MD	Q 616 FET Q 617 FET Q 618 FET Q 619 FET Q 620 FET	IRF2807 IRF2807 IRF2807 IRF2807 IRF2807
D	IC 801 IC IC 802 IC IC 803 IC IC 804 IC Q 202 Transistor	NJM2068D NJM2068D NJM2068D NJM2068D DTC114EK	Q 621 FET Q 622 FET Q 623 FET Q 624 FET Q 625 FET	IRF2807 IRF2807 IRF2807 IRF2807 IRF2807
	Q 203 Transistor Q 204 Transistor Q 303 Transistor Q 304 Transistor Q 305 Transistor	DTC143EK 2SA1037K 2SA992 2SA992 2SC1845	Q 626 FET Q 627 FET Q 628 Transistor Q 629 Transistor Q 630 Transistor	IRF2807 IRF2807 KSC1623 DTA114EK DTC114TK
	Q 306 Transistor Q 307 Transistor Q 308 Transistor Q 309 Transistor Q 310 Transistor	2SC1845 2SC4730 2SA1826 2SC4730 2SA1826	Q 631 Transistor Q 632 Transistor Q 661 Transistor Q 700 Transistor Q 701 Transistor	DTC114TK KSC1623 2SA1048 2SC5511E 2SA2005E
	Q 311 Transistor Q 312 Transistor Q 313 Transistor Q 314 Transistor Q 315 Transistor	2SC4730 2SA1826 2SA1826 2SC4730 IRF9640	Q 702 Transistor Q 703 Transistor Q 902 Transistor Q 903 Transistor Q 904 Transistor	2SC5511E 2SA2005E KSA812 KSC1623 KSC1623
E	Q 316 Transistor Q 317 Transistor Q 318 Transistor Q 319 Transistor Q 320 Transistor	IRF9640 IRF9640 IRF9640 IRF9640 IRF9640	Q 905 Transistor Q 910 Transistor D 201 Diode D 202 Diode D 203 Diode	KSC1623 KSA812 1SS133 1SS133 1SS133
	Q 321 Transistor Q 322 Transistor Q 323 Transistor Q 324 Transistor Q 325 Transistor	IRF640N IRF640N IRF640N IRF640N DTC124EK	D 204 Diode D 301 Diode D 302 Diode D 303 Diode D 304 Diode	RD3R9E(B1) 1SS133 1SS133 FML22S FML22S
F	Q 326 Transistor Q 327 Transistor Q 328 Transistor Q 600 Transistor Q 601 Transistor	DTA124EK DTA124EK DTC124EK KSC1623 2SA1048	D 305 Diode D 306 Diode D 307 Diode D 308 Diode D 309 Diode	FML22S RD39EB RD9R1E(B2) RD9R1E(B2) RD39EB

====Circuit Symbol and No.====Part Name			Part No.	====Circuit Symbol and No.====Part Name			Part No.
D 310	Diode		RD30E(B2)	▲ FU 604	Fuse 30A		HEK0041
D 311	Diode		RD39EB	▲ FU 605	Fuse 30A		HEK0041
D 312	Diode		RD27E(B4)	▲ FU 606	Fuse 30A		HEK0041
D 600	Diode		RM4Z-LFJ4	▲ FU 607	Fuse 30A		HEK0041
D 601	Diode		RM4Z-LFJ4	▲ FU 608	Fuse 30A		HEK0041
D 602	Diode		RM4Z-LFJ4	▲ FU 609	Fuse 30A		HEK0041
D 603	Diode		RM4Z-LFJ4	▲ FU 610	Fuse 30A		HEK0041
D 605	Diode		HZS7L(B2)	▲ FU 611	Fuse 30A		HEK0041
D 606	Diode		ERA15-02VH	▲ FU 612	Fuse 30A		HEK0041
D 607	Diode		ERA15-02VH	▲ FU 701	Fuse 0.375A		HEK0042
D 608	LED		DB1112H	▲ FU 702	Fuse 0.375A		HEK0042
D 610	Diode		1SS133	▲ FU 801	Fuse 3A		HEK0043
D 612	Diode		1SS133	RESISTORS			
D 613	Diode		1SS133	R 101			
D 620	Diode		MTZJ18(B)	R 102			RS1/16S432J
D 621	Diode		1SS133	R 103			RS1/16S432J
D 622	Diode		1SS133	R 105			RS1/16S432J
D 623	Diode		1SS133	R 107			RS1/16S432J
D 624	Diode		1SS355	R 108			RS1/16S222J
D 625	Diode		1SS355	R 110			RS1/16S182J
D 626	Diode		1SS355	R 111			RS1/16S222J
D 627	Diode		1SS355	R 112			RS1/16S221J
D 658	Diode		1SS133	R 113			RS1/16S221J
D 701	Diode		MUR1620CT	R 114			RS1/16S222J
D 702	Diode		MUR1620CTR	R 115			RS1/16S560J
D 703	Diode		MUR1620CT	R 116			RS1/16S822J
D 704	Diode		MUR1620CTR	R 117			RS1/16S222J
D 712	Diode		HZS16L(1)	R 118			RS1/16S202J
D 713	Diode		HZS16L(1)	R 119			RS1/16S103J
D 714	Diode		RD22EB2	R 120			RS1/16S123J
D 715	Diode		RD22EB2	R 121			RS1/16S392J
D 901	Diode		1SS133	R 122			RS1/16S393J
L 301	Coil		HTH0016	R 124			RS1/16S473J
L 601	Choke Coil 7μH		HTH0014	R 204			RS1/16S331J
L 700	Choke Coil 100μH		HTH0015	R 205			RD1/4PU101J
L 701	Choke Coil 100μH		HTH0015	R 209			RD1/4PU472J
L 801	Ferri-Inductor		CTF1007	R 210			RD1/4PU102J
L 802	Ferri-Inductor		CTF1007	R 211			RD1/4PU202J
L 803	Ferri-Inductor		CTF1007	R 212			RD1/4PU223J
T 700	Transformer		HTT0031	R 213			RD1/4PU222J
T 701	Transformer		HTT0031	R 301			RD1/4PU333J
TH 601	Thermistor		HCX0002	R 302			RS1/16S101J
TH 602	Thermistor		HCX0002	R 303			RS1/16S103J
TH 603	Thermistor		HCX0001	R 304			RD1/4PU561J
TH 604	Thermistor		HCX0001	R 305			RD1/4PU102J
TH 605	Thermistor		HCX0001	R 306			RS1/PMF163J
TH 606	Thermistor		HCX0004	R 307			RS1/16S101J
S 101	Switch (SLOPE SELECT)		HSH0004	R 308			RS1/16S101J
S 102	Switch (MODE SELECT)		HSH0005	R 309			RS1/16S103J
S 103	Switch (SUBSONIC SELECT)		HSH0004	R 310			RS1/16S393J
S 601	Switch (BFC)(EW)		HSH-156	R 311			RS1/16S393J
VR 101	Variable Resistor 20kΩ(E) (LPF FREQ.)		CCS1266	R 314			RD1/4PU0R0J
VR 105	Variable Resistor 10kΩ(A) (BASS BOOST LEVEL)		CCS1265	R 315			RD1/4PU0R0J
VR 106	Variable Resistor 50kΩ(C) (BASS BOOST FREQ.)		CCS1263	R 316			RS1/2PMF223J
VR 107	Variable Resistor 10kΩ(A) (GAIN CONTROL)		CCS1265	R 317			RS1/2PMF223J
VR 301	Semi-fixedr 2.2kΩ		HCP0003	R 318			RS1/2PMF241J
VR 600	Semi-fixed 100kΩ(B)		RH063MC15R	R 319			RS1/2PMF221J
VR 601	Semi-fixed 100kΩ(B)		RH063MC15R	R 320			RS1/2PMF221J
▲ FU 601	Fuse 30A		HEK0041	R 321			RS1/2PMF241J
▲ FU 602	Fuse 30A		HEK0041	R 322			RD1/4PU100J
▲ FU 603	Fuse 30A		HEK0041	R 323			RD1/4PU100J
▲ FU 604	Fuse 30A		HEK0041	R 324			RS1/16S510J
▲ FU 605	Fuse 30A		HEK0041	R 325			RS1/16S470J
▲ FU 606	Fuse 30A			R 326			RS2LMF301J
▲ FU 607	Fuse 30A			R 327			RS2LMF301J
▲ FU 608	Fuse 30A			R 328			RS2LMF221J
▲ FU 609	Fuse 30A			R 329			RS2LMF221J
▲ FU 610	Fuse 30A			R 330			RS1/2PMF4R7J

A	====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.
	R 331	RS1/2PMF4R7J	R 638	RD1/4PU472J
	R 332	RD1/4PU104J	R 639	RD1/4PU472J
	R 333	RD1/4PU104J	R 640	RS1/2PMF470J
	R 334	RD1/4PU272J	R 641	RS1/2PMF470J
	R 335	RD1/4PU272J	R 642	RS1/2PMF470J
	R 336	RS1/2PMF100J	R 643	RS1/2PMF470J
	R 337	RS1/2PMF100J	R 644	RS1/2PMF470J
	R 338	RS1/2PMF100J	R 645	RS1/2PMF470J
	R 339	RS1/2PMF100J	R 646	RS1/2PMF470J
	R 340	RS1/2PMF100J	R 647	RS1/2PMF470J
B	R 341	RS1/2PMF100J	R 648	RS1/2PMF470J
	R 342	RS1/2PMF100J	R 649	RS1/2PMF470J
	R 343	RS1/2PMF100J	R 650	RS1/2PMF470J
	R 344	RS1/2PMF100J	R 651	RS1/2PMF470J
	R 345	RS1/2PMF100J	R 652	RS1/2PMF220J
	R 346 0.01Ω	HCN0011	R 653	RS1/2PMF220J
	R 347 0.01Ω	HCN0011	R 654	RS1/2PMF220J
	R 348 0.01Ω	HCN0011	R 655	RS1/2PMF220J
	R 349 0.01Ω	HCN0011	R 656	RS1/16S122J
	R 350	RS2PMF220J	R 657	RS1/16S101J
	R 351	RS2LMF2R2J	R 658	RS1/16S223J
	R 352	RD1/4PU473J	R 659	RS1/16S103J
	R 353	RD1/4PU473J	R 660	RS1/16S472J
	R 354	RD1/4PU393J	R 661	RS1/16S472J
	R 355	RD1/4PU393J	R 662	RS1/16S472J
C	R 356	RS1/2PMF822J	R 664	RD1/4PU104J
	R 357	RS2LMF2R2J	R 665	RD1/4PU512J
	R 358	RS1/16S472J	R 667	RS1/16S563J
	R 359	RS1/16S472J	R 668	RD1/4PU104J
	R 360	RS1/16S163J	R 669	RD1/4PU472J
	R 361	RS1/16S153J	R 670	RS1/16S222J
	R 600	RD1/4PU102J	R 671	RS1/16S272J
	R 601	RD1/4PU473J	R 672	RS1/16S242J
	R 602	RD1/4PU103J	R 673	RS1/16S563J
	R 603	RD1/4PU103J	R 674	RS1/16S103J
D	R 604	RD1/4PU222J	R 675	RS1/16S563J
	R 605	RS1/16S621J	R 676	RS1/16S563J
	R 606	RS1/16S621J	R 677	RS1/16S103J
	R 607	RD1/4PU103J	R 679	RS1/16S333J
	R 608	RD1/4PU472J	R 678	RS1/16S103J
	R 609	RS1/16S472J	R 680	RS1/16S1602D
	R 610	RS1/16S223J	R 681	RS1/16S1602D
	R 611	RS1/16S223J	R 682	RS1/16S1803D
	R 612	RD1/4PU223J	R 683	RS1/16S2203D
	R 613	RD1/4PU331J	R 684	RS1/16S1102D
	R 614	RD1/4PU331J	R 685	RS1/16S1501D
	R 615	RD1/4PU152J	R 686	RS1/16S2401D
	R 616	RD1/4PU152J	R 687	RS1/16S2401D
	R 617 (EW)	RS1/16S105J	R 688	RS1/16S433J
	R 618	RS1/16S183J	R 689	RS1/16S433J
E	R 619	RS1/16S102J	R 690	RS1/16S103J
	R 620	RS1/16S273J	R 691	RS1/16S163J
	R 621	RD1/4PU0R0J	R 692	RS1/16S104J
	R 622	RS1/16S242J	R 698	RS1/16S272J
	R 623	RS1/16S472J	R 699	RD1/4PU151J
	R 624	RS1/16S472J	R 700	RS1/2PMF220J
	R 625	RS1/16S272J	R 701	RS1/2PMF220J
	R 626	RS1/16S272J	R 712	RD1/4PU153J
	R 627	RS1/16S272J	R 713	RD1/4PU153J
	R 632	RD1/4PU621J	R 714	RD1/4PU333J
	R 633	RD1/4PU621J	R 715	RD1/4PU333J
	R 634	RD1/4PU621J	R 800	RS1/16S471J
	R 635	RD1/4PU621J	R 801	RS1/16S223J
	R 636	RD1/4PU472J	R 802	RN1/10SE1002D
	R 637	RD1/4PU472J	R 803	RN1/10SE1002D
F				

====Circuit Symbol and No.====Part Name		====Circuit Symbol and No.====Part Name		====Circuit Symbol and No.====Part Name	
---	---	---	---	---	---
R 804	RN1/10SE1002D	C 311		CKSRYB103K50	A
R 805	RN1/10SE1002D	C 312		CKSRYB104K25	
R 806	RS1/16S471J	C 313		CKSRYB473K50	
R 807	RS1/16S223J	C 314		CKSRYB224K16	
R 808	RN1/10SE1002D	C 315		CKSRYB473K50	
R 809	RN1/10SE1002D	C 321		CCSRCH101J50	
R 810	RN1/10SE1002D	C 322		CCSRCH101J50	
R 811	RN1/10SE1002D	C 325		CKSRYB224K16	
R 812	RS1/16S471J	C 326		CKSRYB224K16	
R 813	RS1/16S223J	C 327		CKSRYB682K50	
R 814	RN1/10SE1002D	C 328	0.1μF	HCE0003	B
R 815	RN1/10SE1002D	C 329	0.1μF	HCE0003	
R 816	RN1/10SE1002D	C 330		CKSRYB103K50	
R 817	RN1/10SE1002D	C 341	1μF	HCE0004	
R 819	RS1/16S471J	C 342	0.1μF	HCE0003	
R 821	RS1/16S472J	C 343	100μF/100V	HCH0026	
R 823	RS1/16S472J	C 344	0.1μF	HCE0003	
R 824	RS1/16S472J	C 346	1μF	HCE0004	
R 890	RS1/16S222J	C 347	560pF	HCE0002	
R 891	RS1/16S152J	C 352	3300μF/100V	HCH0029	
R 892	RS1/16S472J	C 353		CKSRYB332K50	
R 893	RS1/16S562J	C 354		CKSRYB332K50	
R 901	RD1/4PU473J	C 355		CKSRYB332K50	
R 902	RD1/4PU104J	C 360	4.7μF	HCE0005	
R 903	RD1/4PU103J	C 361	22μF/100V	HCH0028	
R 904	RD1/4PU472J	C 362	22μF/100V	HCH0028	C
R 905	RD1/4PU103J	C 363	3300μF/100V	HCH0029	
R 907	RD1/4PU563J	C 364		CQMA472J50	
R 908	RD1/4PU221J	C 365		CQMA472J50	
R 915	RD1/4PU472J	C 366		CEAT220M50	
CAPACITORS					
C 101	CFTNA154J50	C 370		CEAT101M25	
C 102	CFTNA103J50	C 371		CEAT101M25	
C 103	CFTNA473J50	C 600		CKSRYB104K25	
C 105	CFTNA154J50	C 601		CKSRYB223K50	
C 107	CFTNA474J50	C 602		CFTNA103J50	
C 110		C 603		CFTNA103J50	
C 111	CFTNA273J50	C 604		CEAT100M50	
C 112	CFTNA224J50	C 605		CFTNA223J50	D
C 113	CCSRCH271J50	C 606		CEAT100M50	
C 114	CEAT4R7M50	C 607		CFTNA223J50	
C 115	CFTNA103J50	C 609		CFTNA223J50	
C 116	CFTNA103J50	C 610		CFTNA105J50	
C 117	CFTNA103J50	C 611		CFTNA103J50	
C 118	CFTNA824J50	C 612		CEAT471M25	
C 119	CFTNA824J50	C 613		CEAT220M50	
C 120	CFTNA824J50	C 614		CFTNA103J50	
C 121	CFTNA824J50	C 615		CQMA102J50	
C 122	CFTNA103J50	C 616		CFTNA223J50	
C 123	CFTNA103J50	C 617		CEAT471M25	
C 124	CFTNA103J50	C 618		CKSRYB332K50	
C 125	CFTNA103J50	C 619		CKSRYB472K50	
C 201	CEAT100M16	C 620		CQMA472J50	
C 202	CEATR47M50	C 621	4700μF/25V	HCH0022	
C 203	CEAT471M16	C 622	4700μF/25V	HCH0022	
C 204	CEAT100M50	C 623	4700μF/25V	HCH0022	
C 301	CEAT100M50	C 624		CQMA472J50	
C 302	CEAT100M50	C 625		CQMA472J50	
C 303	CEAT100M50	C 626	4700μF/25V	HCH0022	
C 304	CEAT100M50	C 627	4700μF/25V	HCH0022	
C 305	CEAT1R0M50	C 628	4700μF/25V	HCH0022	
C 306	CEAT1R0M50	C 629		CQMA472J50	
C 307	CEATR22M50	C 630		CFTNA103J50	
C 308	CEAT1R0M50	C 631	220μF/10V	HCH0012	
C 309	CEAT1R0M50	C 632		CFTNA473J50	
C 310	CKSRYB223K25	C 633		CFTNA223J50	

A	====Circuit Symbol and No.==Part Name	Part No.	====Circuit Symbol and No.==Part Name	Part No.
	C 634	CFTNA473J50	C 743	3300pF
	C 635	CEAT471M25	C 800	HCH0029
	C 636	CFTNA564J50	C 801	CKSRYB471K50
	C 637	CFTNA564J50	C 802	CEAT100M16
	C 638	CEAT1R0M50	C 803	CQMA472J50
				CCSRCH271J50
	C 639	CEAT220M50	C 804	
	C 640	CKSRYB472K50	C 805	CCSRCH271J50
	C 641	CFTNA103J50	C 806	CFTNA103J50
	C 642	CKSRYB103K50	C 807	CKSRYB471K50
	C 643	CKSRYB103K50	C 808	CEAT100M16
				CCSRCH271J50
B	C 644	CEAT100M50	C 809	
	C 664	CEAT100M50	C 810	CFTNA103J50
	C 698	CEAT220M50	C 811	CFTNA103J50
	C 699	CEAT220M50	C 812	CQMA472J50
	C 700	CQMA102K2E	C 813	CKSRYB471K50
	C 701	3900μF/100V	C 814	
	C 702	CQMA102K2E	C 815	CEAT100M16
	C 703	HCH0023	C 816	CKSRYB272K50
	C 704	3900μF/100V	C 817	CCSRCH271J50
	C 705	HCH0023	C 818	CFTNA103J50
				CFTNA103J50
	C 706	3900μF/100V	C 819	
	C 707	HCH0023	C 820	CFTNA104J50
	C 708	3900μF/100V	C 822	CKSRYB272K50
	C 709	3300p	C 823	CEAT100M16
	C 724	HCH0029	C 824	CKSRYB332K50
		CEAT100M50		CKSRYB332K50
C	C 725	CEAT100M50	C 826	
	C 726	CEAT470M25	C 830	CFTNA103J50
	C 727	CEAT470M25	C 831	CKSRYB332K50
	C 728	0.1μF	HCE0003	CKSRYB272K50
	C 729	0.1μF	HCE0003	CFTNA103J50
	C 730	CFTNA104J50	C 892	
	C 731	CFTNA104J50	C 901	220μF/10V
	C 732	CFTNA334J50		HCH0012
	C 734	220μF/35V	HCH0032	
	C 735	220μF/35V	HCH0032	CFTNA103J50
				HCH0012
D	C 736	CEAT100M50		
	C 737	CEAT100M50		
	C 740	3300pF	HCH0029	
	C 741	3300pF	HCH0029	
	C 742	3300pF	HCH0029	

6. ADJUSTMENT

There is no information to be shown in this chapter.

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 DISASSEMBLY

- **Removing the Case (Fig.1)**

- 1 Remove the seven screws.
- 2 Remove the screw.
- 3 Remove the six screws and then remove the Case.

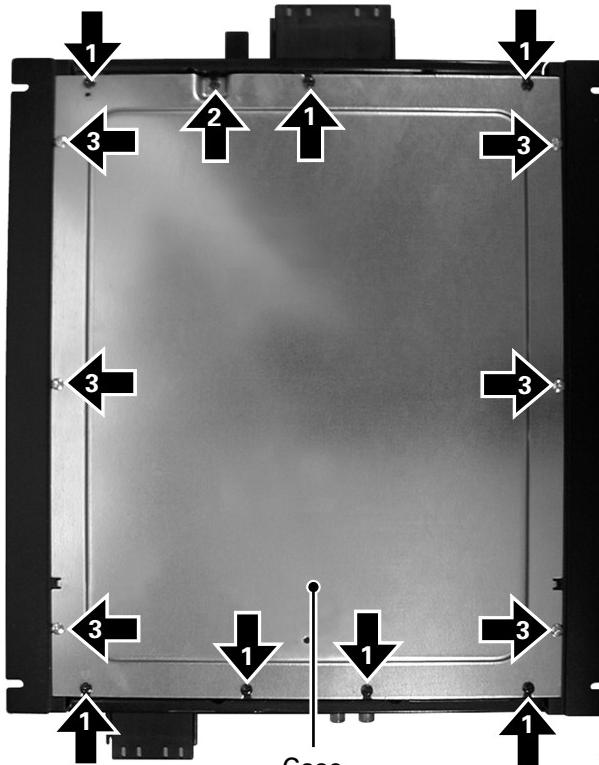


Fig.1

- **Removing the Amp Unit (Fig.2)**

- 1 Remove the two screws.
- 2 Remove the screw.
- 3 Remove the five screws and then remove the Panel.
- 4 Remove the two screws.
- 5 Remove the two screws and then remove the Panel.
- 6 Remove the seventeen screws.
- 7 Remove the fifteen screws and then remove the Amp Unit.

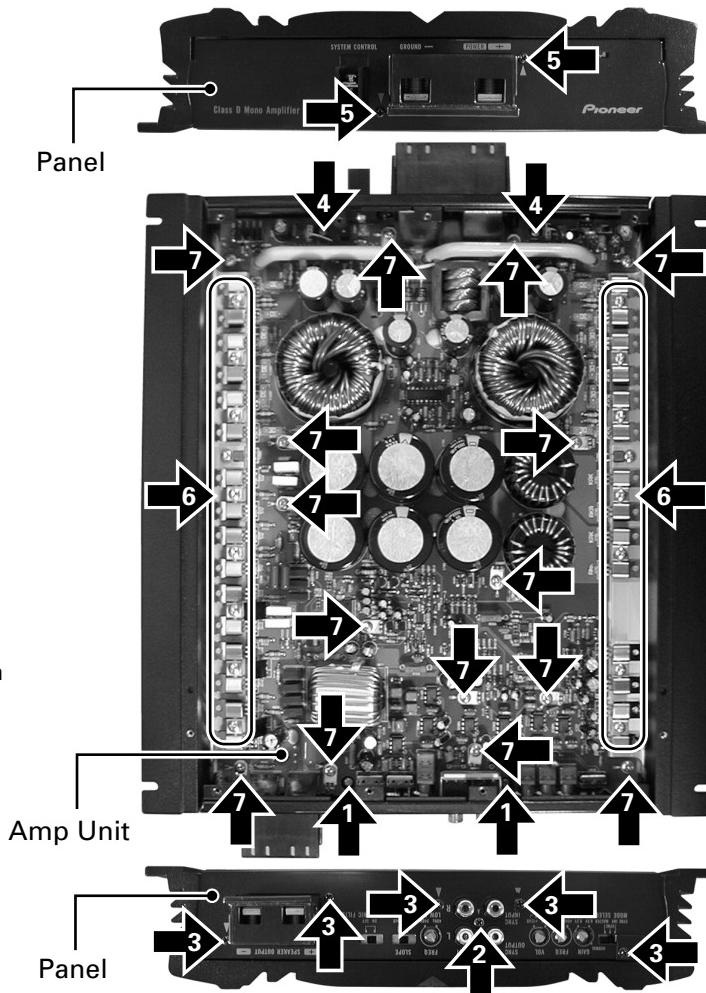
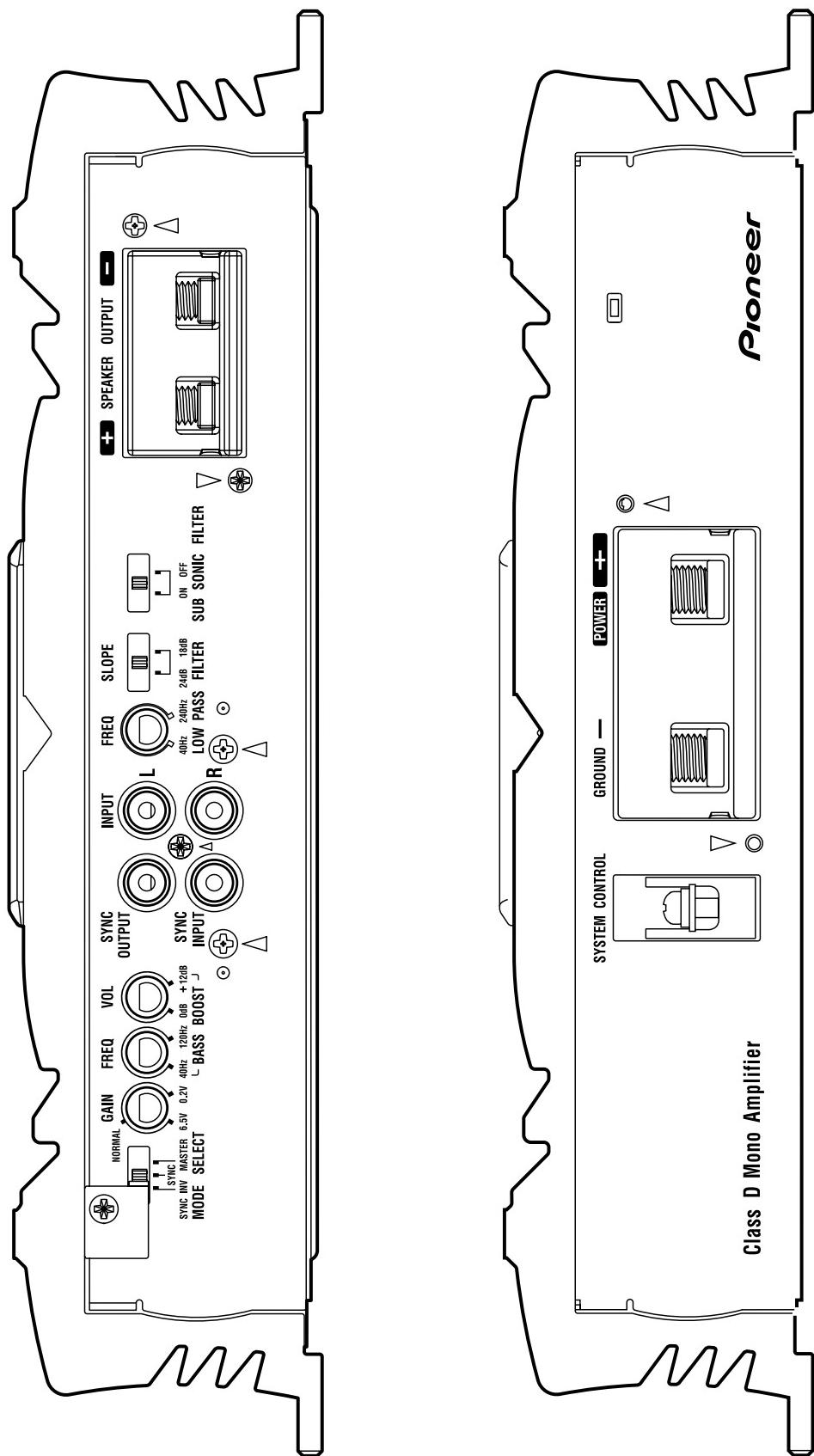


Fig.2

A

7.1.2 CONNECTOR FUNCTION DESCRIPTION



8. OPERATIONS

Gain Control

- If the sound level is too low, even when the volume of the car stereo used along with this power amplifier is turned up, turn gain control on the front of the power amplifier clockwise. If the sound distorts when the volume is turned up, turn the gain control counter-clockwise.
- When using with an RCA equipped car stereo (standard output of 500 mV), set to the NORMAL position. When using with an RCA equipped Pioneer car stereo with max. output of 4 V or more, adjust level to match the car stereo output level.
- For synced amplifier's gain control, see the "Setting the Gain for synced amplifier" section.

(EW model)

BFC (Beat Frequency Control) Switch

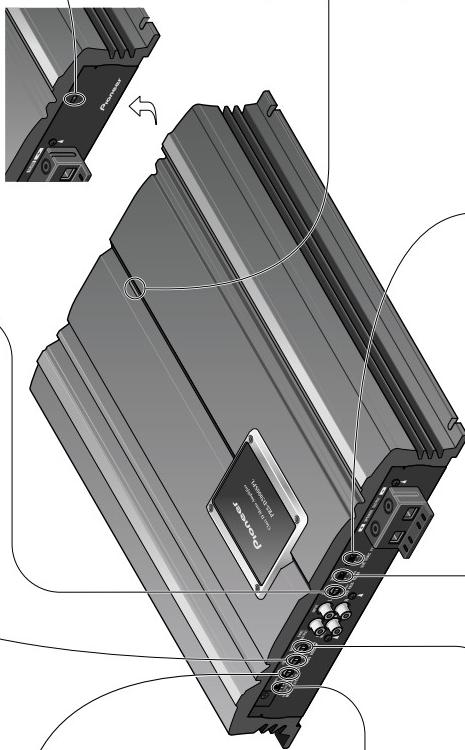
If you hear a beat while listening to an MW/LW broadcast with your car stereo, change the BFC switch using a small standard tip screwdriver.

Cut Off Frequency Control for LPF

You can select a cut off frequency from 40 to 240 Hz.

Bass Boost Frequency Control

You can select a bass boost frequency from 40 to 120 Hz with the bass boost control.



MODE SELECT Switch

You can select amplifier's sync mode from MASTER, SYNC and SYNC INV. For the position of the MODE SELECT switch, see the "Connecting the Speaker wires" section.

If you hear a beat w
MW/I W broadcast

change the BFC switch using a small standard tip screwdriver.

Power Indicator

The power indicator lights when the power is switched on.

Subsonic Select Switch

The subsonic filter cuts inaudible frequencies below 20 Hz to eliminate unwanted vibrations and minimize power loss.

Slope Select Switch

You can select a slope for the LPF from -18 and -24 dB.

Bass Boost Level Control

Bass boost level control can boost the level around the frequency selected by the bass boost frequency control from 0 to 12 dB.